

AMENDMENTS TO THE SPECIFICATION

Please replace the second paragraph on page 1 with the following rewritten paragraph:

In ~~an-a~~ usual radio communication network, a radio terminal has access, over a radio interface, to a Radio Access Network which is the dedicated infrastructure to set up and control connections between the radio terminal and different other possible end-users, for example another radio terminal, a fixed terminal, or a web server.

Please replace the first paragraph on page 2 with the following rewritten paragraph:

Figure 1 represents an example of an IP Backbone network used as transport layer of a Radio Access Network in ~~an-a~~ UMTS radio communication network. Base stations in an UMTS radio communication network are called Node Bs and base station controllers are called Radio Network Controller RNCs. Several base stations 101, ..., 104 as well as several RNCs 111, 112 are considered as hosts of the IP-based Radio Access Network and are connected to each other over interconnected edge routers 121, ..., 124 and core routers 131, ..., 133. The interconnection of edge 121, ..., 124 and core 131, ..., 133 routers constitutes the IP backbone.

Please replace the second paragraph on page 2 with the following rewritten paragraph:

The most important task of the Radio Access Network consists in enabling communications between a base station and its corresponding RNC (IuB interface) as well as communication between several RNCs (Iur interface). In an IP-based Radio access network,

these communications can be made up of several hops, several edge routers or core routers relaying the communication between two hosts.

Please replace the first paragraph on page 4 with the following rewritten paragraph:

A method for solving this problem has already ~~be-been~~ provided in ATM-based Radio Access Networks and consists in using the signaling plane specified in the ATM de facto standard to convey the radio part specific parameters. The user data are in parallel conveyed through a connection established between the base station and the RNC. However, contrary to ATM, basically connection oriented, IP is basically connectionless and do not provide any signaling plane.

Please replace the third paragraph on page 4 with the following rewritten paragraph:

A drawback of this method would be to add overhead and ~~slower-slow~~ the transmission as well as the processing delay. This is all the more problematic as keeping the delays, while crossing the network, as small as possible is vital for ensuring an acceptable quality of service. This method has also the disadvantage to reduce the data throughput at the interface between the Radio Access Network and the radio interface.

Please replace the fourth paragraph on page 4 with the following rewritten

paragraph:

A particular object of the present invention is to provide an addressing scheme that ~~does~~ does not require a separate signaling plane for signaling the type of radio channel on which data destined to a radio terminal have to be transported on the radio interface.

Please replace the fourth paragraph on page 7 which bridges over to page 8 with the following rewritten paragraph:

The UPD-UDP header 23 is, as specified in the IETF standard, divided in four two bytes fields that specify following parameters:

the port from which the UPD-UDP payload has been issued (source port number SPN);
the port to which the UDP payload is destined (destination port number DPN);
the UPD-UDP payload length L; and
a UDP payload checksum CRC.

Please replace the first paragraph on page 8 with the following rewritten paragraph:

The destination port number is used to demultiplex correctly the IP packet and forward each UPD-UDP payload to the application corresponding to the destination port. Usually, the source and destination port are only internally used in a host (e.g. base station or RNC). A pool of port numbers are reserved for concurrent applications performing in parallel an identical task.

In usual use of the UDP protocol, the port numbers are thus either randomly allocated to an application when it is activated or according to a round-robin algorithm.

Please replace the third paragraph on page 8 with the following rewritten

paragraph:

The pool of port ~~number~~numbers as well as the assignment of one group of port numbers to one channel type may preferably be the same for each host in the Radio Access Network.

Please replace the first paragraph on page 10 with the following rewritten

paragraph:

In the following, the use of this addressing scheme in ~~an-a~~ host of the Radio Access Network (base station or RNC) will be discussed in detail.

Please replace the second paragraph on page 10 with the following rewritten

paragraph:

A first part describes the use of the addressing scheme for data coming from the Radio Access Network at a base station and to be transmitted to a radio terminal over the radio interface. The base station identifies thanks to the ~~UPD~~UDP destination port number on which radio channel type the data have to be transmitted. A field in the UDP payload is also used to give the identifier of the end-user to which these data are destined. This identifier is unique for all end-user radio terminals belonging to one base station. The association of the end-user identifier and the UDP port determines univocally the destination of the message to be transmitted on the air interface.